

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the subject application. The Office Action of April 9, 2003 has been received and contents carefully reviewed.

The Examiner has made a requirement for a new title because the original title is not descriptive. Although Applicant believes that the title of the invention is clearly indicative of the invention, for the purpose of expediting the prosecution of this application, the title has been changed.

The drawings are objected to, because in Fig. 8, the legends are not consistent with the written description. In Fig. 8, the circles now correspond to “after heat stress”, and the triangles correspond to “before heat stress”, as suggested by the Examiner. Applicants again appreciate the Examiner’s thorough review and consideration of the application.

By this Amendment, Applicants amend claims 1, 3-5, 11, 14, 19-21, 23 and 28, and add new claims 29-31. Accordingly, claims 1-31 are currently pending in the present application. Reexamination and reconsideration of the application are respectfully requested.

In the Office Action, the Examiner rejected claim 3 under 35 U.S.C. § 112 ¶ 2; rejected claims 1-10 and 19-28 under 35 U.S.C. § 103(a) as being unpatentable over Sakaigawa et al. (U.S. Patent No. 5,812,230) in view of Yamazaki et al. (U.S. Patent No. 5,566,009); rejected claims 11 and 14-18 under 35 U.S.C. § 103(a) as being unpatentable over Sakaigawa et al. in view of Yamazaki et al. and as evidenced by Wolf and Tauber; rejected claim 12 under 35 U.S.C. § 103(a) as being unpatentable over Sakaigawa et al. in view of Yamazaki et al. as applied to claim 11, further in view of Lee et al.; rejected claim 13 under 35 U.S.C. § 103(a) as being unpatentable over Sakaigawa et al. in view of Yamazaki et al. as applied to claim 11, further in view of H. Furue et al. Applicants respectfully traverse these rejections.

Applicant respectfully submits that, in view of the current amendments in the pending claims, the rejection of claim 3 under 35 U.S.C. § 112 ¶ 2 is moot.

The rejections of claims 1-28 under 35 U.S.C. § 103(a) are respectfully traversed and

reconsideration is requested.

Claim 1 is allowable over the cited references in that claim 1 recites a combination of elements including, for example, "...wherein the polymer network is formed after the ferroelectric liquid crystal is changed from a nematic phase or an isotropic phase into a smectic phase and maintains an uniform alignment of the ferroelectric liquid crystal." None of the cited references, singly or in combination, teaches or suggests at least this feature of the claimed invention. Accordingly, Applicant respectfully submits that claim 1, and claims 2-10 and 29, which depend therefrom, are allowable over the cited references.

Claim 11 is allowable over the cited references in that claim 11 recites a combination of elements including, for example, "exposing an ultraviolet light to the uniformly aligned ferroelectric liquid crystal to form a polymer network after the ferroelectric liquid crystal is changed from a nematic phase or an isotropic phase into a smectic phase." None of the cited references, singly or in combination, teaches or suggests at least this feature of the claimed invention. Accordingly, Applicant respectfully submits that claim 11, and claims 12-18 and 30-31, which depend therefrom, are allowable over the cited references.

Claim 19 is allowable over the cited references in that claim 19 recites a combination of elements including, for example, "...wherein the polymer network is formed when the ferroelectric liquid crystal has a smectic phase and maintains an uniform alignment of the ferroelectric liquid crystal." None of the cited references, singly or in combination, teaches or suggests at least this feature of the claimed invention. Accordingly, Applicant respectfully submits that claim 19, and claims 20-28, which depend therefrom, are allowable over the cited references.

Applicants respectfully submit that Sakaigawa et al. discloses at col. 13, lines 1-4, "it is essential to subject the monomer to photopolymerization under a high temperature not less than which the FLC composition exhibits a nematic phase." Accordingly, Applicants respectfully submit that Sakaigawa et al. actually teaches away from the teachings of the present invention as claimed.

Applicants believe the foregoing amendments place the application in condition for

Application No.: 10/005,094

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allowance and early, favorable action is respectfully solicited. If the Examiner deems that a telephone conference would further the prosecution of this application, the Examiner is invited to call the undersigned attorney at the telephone number (202) 496 - 7500. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911.

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Respectfully submitted,

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